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RAW SEQUENCE LISTING

DATE: 01/02/2002

PATENT APPLICATION: US/09/904,536

TIME: 15:02:29

Input Set : N:\Crf3\RULE60\09904536.raw

Output Set: N:\CRF3\01022002\I904536.raw

1 <110> APPLICANT: Graddis, Thomas J.
 2 McGrew, Jeffrey T.
 3 <120> TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
 4 <130> FILE REFERENCE: 03260.0028
 5 <140> CURRENT APPLICATION NUMBER: 09/904,536
 6 <141> CURRENT FILING DATE: 2001-07-16
 8 <150> PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
 9 <151> PRIOR FILING DATE: 1999-07-02
 11 <160> NUMBER OF SEQ ID NOS: 20
 12 <170> SOFTWARE: PatentIn Ver. 2.1
 14 <210> SEQ ID NO: 1
 15 <211> LENGTH: 235
 16 <212> TYPE: PRT
 17 <213> ORGANISM: Homo sapiens
 18 <400> SEQUENCE: 1

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20	1				5					10					15	
21	Leu	Leu	Leu	Leu	Ser	Ser	Gly	Leu	Ser	Gly	Thr	Gln	Asp	Cys	Ser	Phe
22				20					25					30		
23	Gln	His	Ser	Pro	Ile	Ser	Ser	Asp	Phe	Ala	Val	Lys	Ile	Arg	Glu	Leu
24				35				40					45			
25	Ser	Asp	Tyr	Leu	Leu	Gln	Asp	Tyr	Pro	Val	Thr	Val	Ala	Ser	Asn	Leu
26		50					55					60				
27	Gln	Asp	Glu	Glu	Leu	Cys	Gly	Gly	Leu	Trp	Arg	Leu	Val	Leu	Ala	Gln
28		65				70					75				80	
29	Arg	Trp	Met	Glu	Arg	Leu	Lys	Thr	Val	Ala	Gly	Ser	Lys	Met	Gln	Gly
30					85					90					95	
31	Leu	Leu	Glu	Arg	Val	Asn	Thr	Glu	Ile	His	Phe	Val	Thr	Lys	Cys	Ala
32				100					105					110		
33	Phe	Gln	Pro	Pro	Pro	Ser	Cys	Leu	Arg	Phe	Val	Gln	Thr	Asn	Ile	Ser
34			115					120					125			
35	Arg	Leu	Leu	Gln	Glu	Thr	Ser	Glu	Gln	Leu	Val	Ala	Leu	Lys	Pro	Trp
36		130					135					140				
37	Ile	Thr	Arg	Gln	Asn	Phe	Ser	Arg	Cys	Leu	Glu	Leu	Gln	Cys	Gln	Pro
38		145				150					155				160	
39	Asp	Ser	Ser	Thr	Leu	Pro	Pro	Pro	Trp	Ser	Pro	Arg	Pro	Leu	Glu	Ala
40					165					170					175	
41	Thr	Ala	Pro	Thr	Ala	Pro	Gln	Pro	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Leu
42				180					185					190		
43	Pro	Val	Gly	Leu	Leu	Leu	Leu	Ala	Ala	Ala	Trp	Cys	Leu	His	Trp	Gln
44			195					200					205			
45	Arg	Thr	Arg	Arg	Arg	Thr	Pro	Arg	Pro	Gly	Glu	Gln	Val	Pro	Pro	Val
46		210					215					220				
47	Pro	Ser	Pro	Gln	Asp	Leu	Leu	Leu	Val	Glu	His					
48		225				230					235					

50 <210> SEQ ID NO: 2
 51 <211> LENGTH: 988

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52 <212> TYPE: DNA
53 <213> ORGANISM: Homo sapiens
54 <220> FEATURE:
55 <221> NAME/KEY: CDS
56 <222> LOCATION: (30)..(734)
57 <400> SEQUENCE: 2
58      cggccggaat tccggggccc ccggccgaa atg aca gtg ctg gcg cca gcc tgg      53
59                                     Met Thr Val Leu Ala Pro Ala Trp
60                                     1           5
61      agc cca aca acc tat ctc ctc ctg ctg ctg ctg agc tcg gga ctc      101
62      Ser Pro Thr Thr Tyr Leu Leu Leu Leu Leu Leu Ser Ser Gly Leu
63      10           15           20
64      agt ggg acc cag gac tgc tcc ttc caa cac agc ccc atc tcc tcc gac      149
65      Ser Gly Thr Gln Asp Cys Ser Phe Gln His Ser Pro Ile Ser Ser Asp
66      25           30           35           40
67      ttc gct gtc aaa atc cgt gag ctg tct gac tac ctg ctt caa gat tac      197
68      Phe Ala Val Lys Ile Arg Glu Leu Ser Asp Tyr Leu Leu Gln Asp Tyr
69      45           50           55
70      cca gtc acc gtg gcc tcc aac ctg cag gac gag gag ctc tgc ggg ggc      245
71      Pro Val Thr Val Ala Ser Asn Leu Gln Asp Glu Glu Leu Cys Gly Gly
72      60           65           70
73      ctc tgg cgg ctg gtc ctg gca cag cgc tgg atg gag cgg ctc aag act      293
74      Leu Trp Arg Leu Val Leu Ala Gln Arg Trp Met Glu Arg Leu Lys Thr
75      75           80           85
76      gtc gct ggg tcc aag atg caa ggc ttg ctg gag cgc gtg aac acg gag      341
77      Val Ala Gly Ser Lys Met Gln Gly Leu Leu Glu Arg Val Asn Thr Glu
78      90           95           100
79      ata cac ttt gtc acc aaa tgt gcc ttt cag ccc ccc ccc agc tgt ctt      389
80      Ile His Phe Val Thr Lys Cys Ala Phe Gln Pro Pro Pro Ser Cys Leu
81      105           110           115           120
82      cgc ttc gtc cag acc aac atc tcc cgc ctc ctg cag gag acc tcc gag      437
83      Arg Phe Val Gln Thr Asn Ile Ser Arg Leu Leu Gln Glu Thr Ser Glu
84      125           130           135
85      cag ctg gtg gcg ctg aag ccc tgg atc act cgc cag aac ttc tcc cgg      485
86      Gln Leu Val Ala Leu Lys Pro Trp Ile Thr Arg Gln Asn Phe Ser Arg
87      140           145           150
88      tgc ctg gag ctg cag tgt cag ccc gac tcc tca acc ctg cca ccc cca      533
89      Cys Leu Glu Leu Gln Cys Gln Pro Asp Ser Ser Thr Leu Pro Pro Pro
90      155           160           165
91      tgg agt ccc cgg ccc ctg gag gcc aca gcc ccg aca gcc ccg cag ccc      581
92      Trp Ser Pro Arg Pro Leu Glu Ala Thr Ala Pro Thr Ala Pro Gln Pro
93      170           175           180
94      cct ctg ctc ctc cta ctg ctg ctg ccc gtg ggc ctc ctg ctg ctg gcc      629
95      Pro Leu Leu Leu Leu Leu Leu Pro Val Gly Leu Leu Leu Leu Ala
96      185           190           195           200
97      gct gcc tgg tgc ctg cac tgg cag agg acg cgg cgg agg aca ccc cgc      677
98      Ala Ala Trp Cys Leu His Trp Gln Arg Thr Arg Arg Arg Thr Pro Arg
99      205           210           215
100     cct ggg gag cag gtg ccc ccc gtc ccc agt ccc cag gac ctg ctg ctt      725

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101      Pro Gly Glu Gln Val Pro Pro Val Pro Ser Pro Gln Asp Leu Leu Leu
102                      220                      225                      230
103      gtg gag cac tgacctggcc aaggcctcat cctgcggagc cttaaacaac      774
104      Val Glu His
105                      235
106      gcagtgcagac agacatctat catcccatatt tacaggggag gatactgagg cacacagagg 834
107      ggagtcacca gccagaggat gtatagcctg gacacagagg aagttggcta gaggccggtc 894
108      ccttccttgg gccctctca ttccctcccc agaattggagg caacgccaga atccagcacc 954
109      ggcccatatt acccaactct gaacaaagcc cccg      988
111 <210> SEQ ID NO: 3
112 <211> LENGTH: 40
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial Sequence
115 <220> FEATURE:
116 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
117 <400> SEQUENCE: 3
118      attaggtacc tttggataaa agactcagtg ggaccaggac      40
120 <210> SEQ ID NO: 4
121 <211> LENGTH: 37
122 <212> TYPE: DNA
123 <213> ORGANISM: Artificial Sequence
124 <220> FEATURE:
125 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
126 <400> SEQUENCE: 4
127      atatggatcc ctacggggct gtggcctcca ggggccg      37
129 <210> SEQ ID NO: 5
130 <211> LENGTH: 77
131 <212> TYPE: DNA
132 <213> ORGANISM: Artificial Sequence
133 <220> FEATURE:
134 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
135 <400> SEQUENCE: 5
136      cctcctgcag gagacctccg agcagctggt ggcgctgaag ccctggatca ctgcgcagaa 60
137      cttcgcccgg tgcctgg      77
139 <210> SEQ ID NO: 6
140 <211> LENGTH: 46
141 <212> TYPE: DNA
142 <213> ORGANISM: Artificial Sequence
143 <220> FEATURE:
144 <223> OTHER INFORMATION: Description of Artificial Sequence: constructed
145      oligonucleotide
146 <400> SEQUENCE: 6
147      tggataaaaag acacagtggg acccaggact gctccttcca atacag      46
149 <210> SEQ ID NO: 7
150 <211> LENGTH: 46
151 <212> TYPE: DNA
152 <213> ORGANISM: Artificial Sequence
153 <220> FEATURE:
154 <223> OTHER INFORMATION: Description of Artificial Sequence: constructed

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155     oligonucleotide
156 <400> SEQUENCE: 7
157     tggataaaaag acacagtggg acccaggact gctccttcca atacag
159 <210> SEQ ID NO: 8
160 <211> LENGTH: 209
161 <212> TYPE: PRT
162 <213> ORGANISM: Homo sapiens
163 <400> SEQUENCE: 8
164     Thr Gln Asp Cys Ser Phe Gln Arg Ser Pro Ile Ser Ser Asp Phe Ala
165         1             5             10             15
166     Val Lys Ile Arg Glu Leu Ser Asp Tyr Leu Leu Gln Asp Tyr Pro Val
167         20             25             30
168     Thr Val Ala Ser Asn Leu Gln Asp Glu Glu Leu Cys Gly Gly Leu Trp
169         35             40             45
170     Arg Leu Val Leu Ala Gln Arg Trp Met Glu Arg Leu Lys Thr Val Ala
171         50             55             60
172     Gly Ser Lys Met Gln Gly Leu Leu Glu Arg Val Asn Thr Glu Ile His
173         65             70             75             80
174     Phe Val Thr Lys Cys Ala Phe Gln Pro Pro Pro Ser Cys Leu Arg Phe
175         85             90             95
176     Val Gln Thr Asn Ile Ser Arg Leu Leu Gln Glu Thr Ser Glu Gln Leu
177         100            105            110
178     Val Ala Leu Lys Pro Trp Ile Thr Arg Gln Asn Phe Ser Arg Cys Leu
179         115            120            125
180     Glu Leu Gln Cys Gln Pro Asp Ser Ser Thr Leu Pro Pro Trp Ser
181         130            135            140
182     Pro Arg Pro Leu Glu Ala Thr Ala Pro Thr Ala Pro Gln Pro Pro Leu
183         145            150            155            160
184     Leu Leu Leu Leu Leu Leu Pro Val Gly Leu Leu Leu Leu Ala Ala Ala
185         165            170            175
186     Trp Cys Leu His Trp Gln Arg Thr Arg Arg Arg Thr Pro Arg Pro Gly
187         180            185            190
188     Glu Gln Val Pro Pro Val Pro Ser Pro Gln Asp Leu Leu Leu Val Glu
189         195            200            205
190     His
192 <210> SEQ ID NO: 9
193 <211> LENGTH: 209
194 <212> TYPE: PRT
195 <213> ORGANISM: Homo sapiens
196 <400> SEQUENCE: 9
197     Thr Gln Asp Cys Ser Phe Gln His Ser Pro Ile Ser Ser Asp Phe Ala
198         1             5             10             15
199     Val Lys Ile Arg Glu Leu Ser Asp Tyr Leu Leu Gln Asp Tyr Pro Val
200         20             25             30
201     Thr Val Ala Ser Asn Leu Gln Asp Glu Glu Leu Cys Gly Gly Leu Trp
202         35             40             45
203     Arg Leu Val Leu Ala Gln Arg Trp Met Glu Arg Leu Lys Thr Val Thr
204         50             55             60
205     Gly Ser Lys Met Gln Gly Leu Leu Glu Arg Val Asn Thr Glu Ile His

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206      65      70      75      80
207 Phe Val Thr Lys Cys Ala Phe Gln Pro Pro Pro Ser Cys Leu Arg Phe
208      85      90      95
209 Val Gln Thr Asn Ile Ser Arg Leu Leu Gln Glu Thr Ser Glu Gln Leu
210      100      105      110
211 Val Ala Leu Lys Pro Trp Ile Thr Arg Gln Asn Phe Ser Arg Cys Leu
212      115      120      125
213 Glu Leu Gln Cys Gln Pro Asp Ser Ser Thr Leu Pro Pro Pro Trp Ser
214      130      135      140
215 Pro Arg Pro Leu Glu Ala Thr Ala Pro Thr Ala Pro Gln Pro Pro Leu
216      145      150      155      160
217 Leu Leu Leu Leu Leu Leu Pro Val Gly Leu Leu Leu Leu Ala Ala Ala
218      165      170      175
219 Trp Cys Leu His Trp Gln Arg Thr Arg Arg Arg Thr Pro Arg Pro Gly
220      180      185      190
221 Glu Gln Val Pro Pro Val Pro Ser Pro Gln Asp Leu Leu Leu Val Glu
222      195      200      205
223 His
225 <210> SEQ ID NO: 10
226 <211> LENGTH: 212
227 <212> TYPE: PRT
228 <213> ORGANISM: Homo sapiens
229 <400> SEQUENCE: 10
230 His Ser Gly Thr Gln Asp Cys Ser Phe Gln His Ser Pro Ile Ser Ser
231 1 5 10 15
232 Asp Phe Ala Val Lys Ile Arg Glu Leu Ser Asp Tyr Leu Leu Gln Asp
233 20 25 30
234 Tyr Pro Val Thr Val Ala Ser Asn Leu Gln Asp Glu Glu Leu Cys Gly
235 35 40 45
236 Gly Leu Trp Arg Leu Val Leu Ala Gln Arg Trp Met Glu Arg Leu Lys
237 50 55 60
238 Thr Val Ala Gly Ser Lys Met Gln Gly Leu Leu Glu Arg Val Asn Thr
239 65 70 75 80
240 Glu Ile His Phe Val Thr Lys Cys Ala Phe Gln Pro Pro Pro Ser Cys
241 85 90 95
242 Leu Arg Phe Val Gln Thr Asn Ile Ser Arg Leu Leu Gln Glu Thr Ser
243 100 105 110
244 Glu Gln Leu Val Ala Leu Lys Pro Trp Ile Thr Arg Gln Asn Phe Ser
245 115 120 125
246 Arg Cys Leu Glu Leu Gln Cys Gln Pro Asp Ser Ser Thr Leu Pro Pro
247 130 135 140
248 Pro Trp Ser Pro Arg Pro Leu Glu Ala Thr Ala Pro Thr Ala Pro Gln
249 145 150 155 160
250 Pro Pro Leu Leu Leu Leu Leu Leu Pro Val Gly Leu Leu Leu Leu
251 165 170 175
252 Ala Ala Ala Trp Cys Leu His Trp Gln Arg Thr Arg Arg Arg Thr Pro
253 180 185 190
254 Arg Pro Gly Glu Gln Val Pro Pro Val Pro Ser Pro Gln Asp Leu Leu
255 195 200 205

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VERIFICATION SUMMARY

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